Intelligent Speed Dome Camera
Installation Manual

Please read this manual carefully before product installation.

P6EV1 07/06/26

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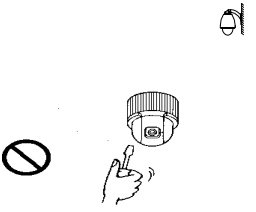
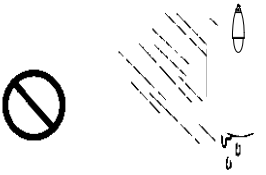
Precaution

1. Before installing and using the camera, please read this manual and The User Manual of Intelligent Dome Camera.
2. The dome camera uses AC 24V power supply(Indoor 1A/Outdoor 2A). The rated input voltage is attached at the bottom of the camera or relevant places.
3. Interior of the Dome device are precision optical and electrical instruments. Heavy pressure, shock and other incorrect operations should be prevented during the processes of delivery, storage and installation. Otherwise, may cause damage on product.



4. Please do not remove and disassemble any internal parts of Dome video camera by self in order to avoid normal usage being impacted. There is no part inside the device, which can be repaired by users themselves.
5. During usage, user should abide by all electrical safety standards and adopt the special power provided with the Dome video camera. During transmission, RS-485 and video signal should be retained enough distance with high-voltage equipments or cables. When necessary, thunder-proof, surge-proof and other protecting measures should be carried out.



6. Indoor Dome is only for indoor use in order to avoid the Dome video camera to be rained or be affected with humidity, etc. Please do not use the product in humid place.
7. Please do not use the product under the situations of exceeding specified temperature, humidity or power supply specifications.
8. No matter whether power of the Dome video camera is connected or not,

please do not aim the video camera at sun or extremely bright object and do not aim or monitor the video camera at bright static object for long time.

9. Please do not use strong or caustic washing lotion to clean the main body of the Dome video camera. After dirt is cleaned up, please use cotton fabric to clean the product.

10. Shall use the high-speed Dome video camera carefully and avoid being stroked or shocked.

11. When install the Dome Video Camera, please install it in the place with enough holding force.

12. If camera lens adheres with dust, please use special lens paper to clean up.

I. Packing Schematic Drawing

Fig 1 is the sketch of the upper deck and Fig 2 shows the lower deck.

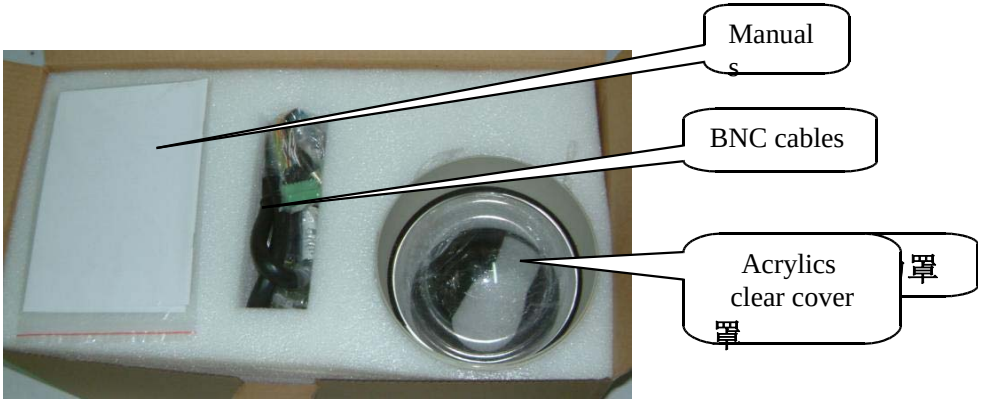


Fig 1

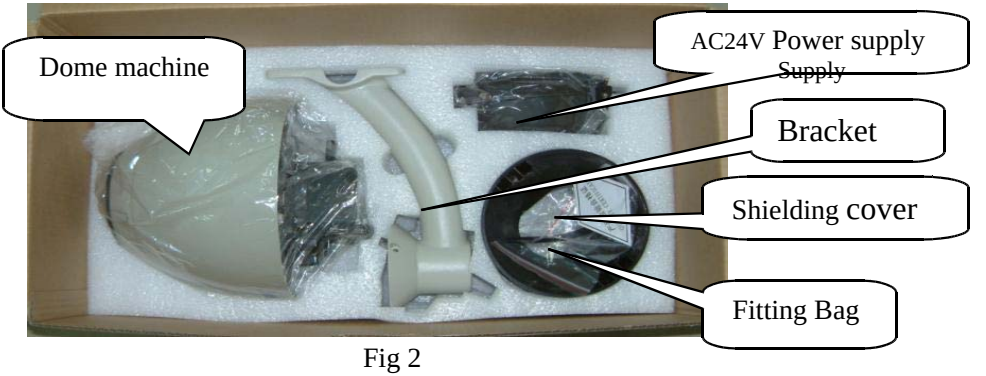
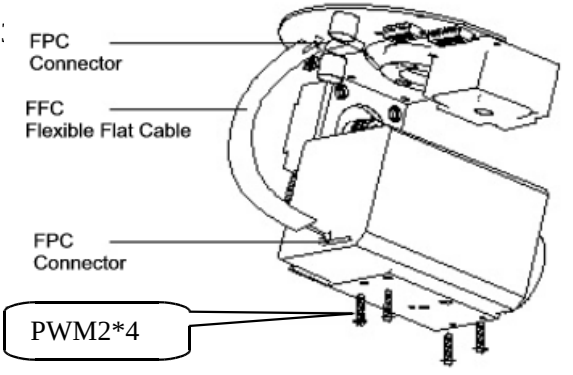


Fig 2

II. Video Camera Installation Steps

Step 1: Insert one end of the cable for video camera into the corresponding inter g 4) indicated, and Fig 3



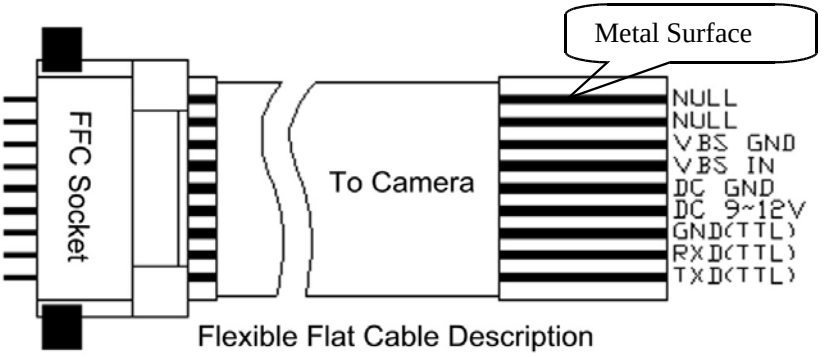


Fig 3

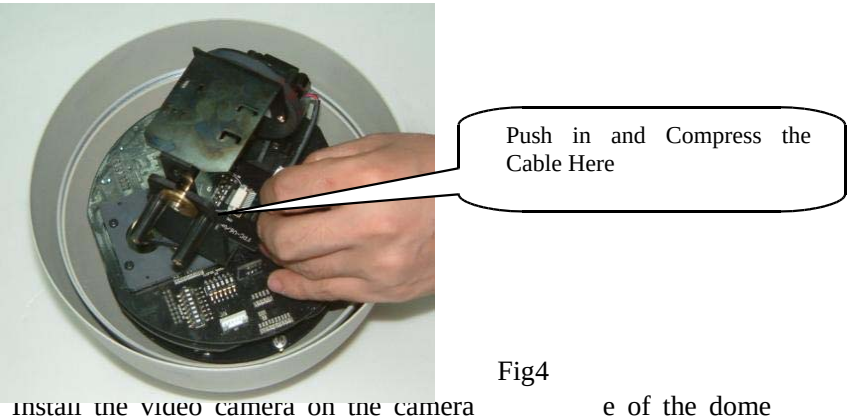


Fig4

Step 2: Install the video camera on the camera e of the dome machine, as indicated in Fig 5.

Attention!

Please don't scratch the lens when video camera is being installed. The main-

body machine sizes are different according to different models of video camera. After installed the camera and before being turned on, please test by manual to confirm that the camera doesn't touch the Acrylic cover or other parts.

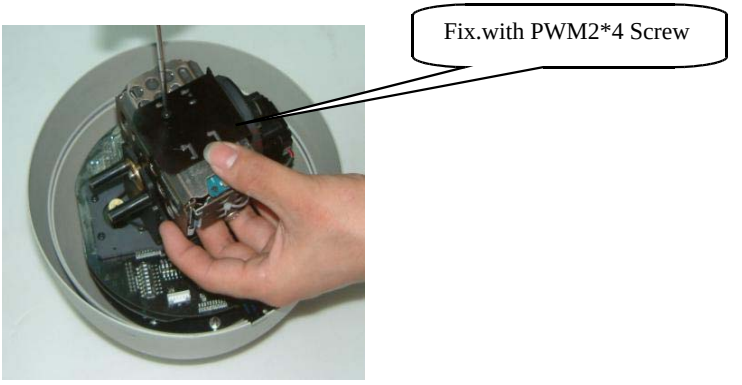


Fig 5

Step 3: Insert the other end of cable into the port of video camera, as indicated in Fig 6 and Fig 7.

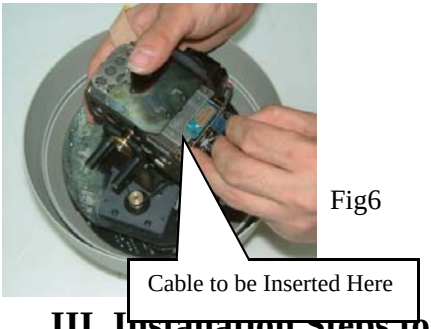
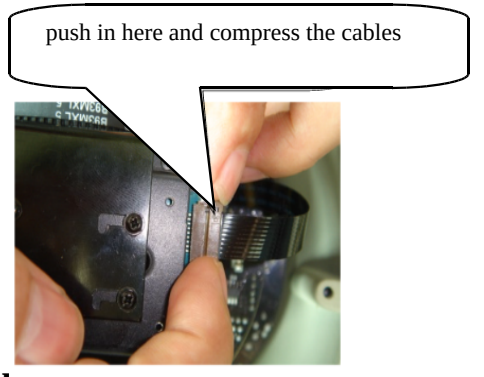


Fig6



III. Installation Steps for Shielding Cover of Dome

Fig 8 shows the fixing holes of the shielding cover, 4 pcs M3 screw holes in total.

Fig 8

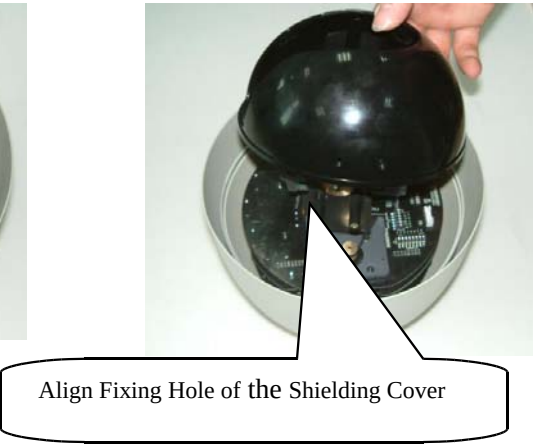


Fig 9

Fig 10

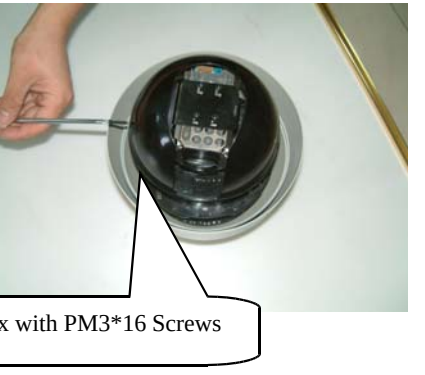


Fig 11

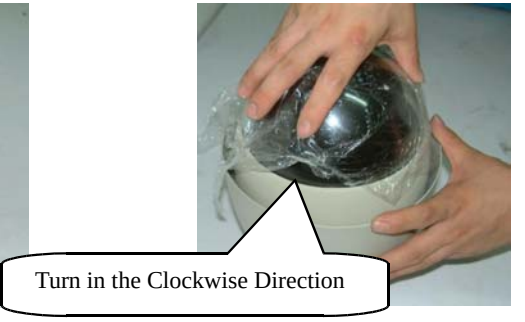


Fig 12 Fig 13

Step 1: Align the opening of the shielding cover for machine to the lens of video camera, and align the 4 holes on the shielding cover and the 4 pcs M3 screw holes on the dome machine, as indicated in Fig 8 and Fig 9.

Step 2: Lock up the 4 PM3*16 slotted set screws, as indicated in Fig 11.

Step 3: Align the acrylics clear cover to the screw joint of the dome machine, turn in the clockwise direction and tighten it up, as indicated in Fig 12 and Fig 13.

IV. Bracket Installation Steps

Step 1: Pass the connecting wire of dome machine through the hollow tube of the bracket. Check whether there is any residual inside the hollow tube of the bracket before passing the wire through, as indicated in Fig 14.

Fig14

Fig 15

Step 2: Fix the bracket that has been passed with connecting wire onto the wall with 4 pcs M6 explosion screws, as indicated in Fig 15.

V. Dome Machine Installation Steps

Step 1: Insert the plug of the connecting wire for the dome machine into the interface on the upper part of dome machine as indicated in Fig 16 and Fig 17.

Fig.16

Fig.17

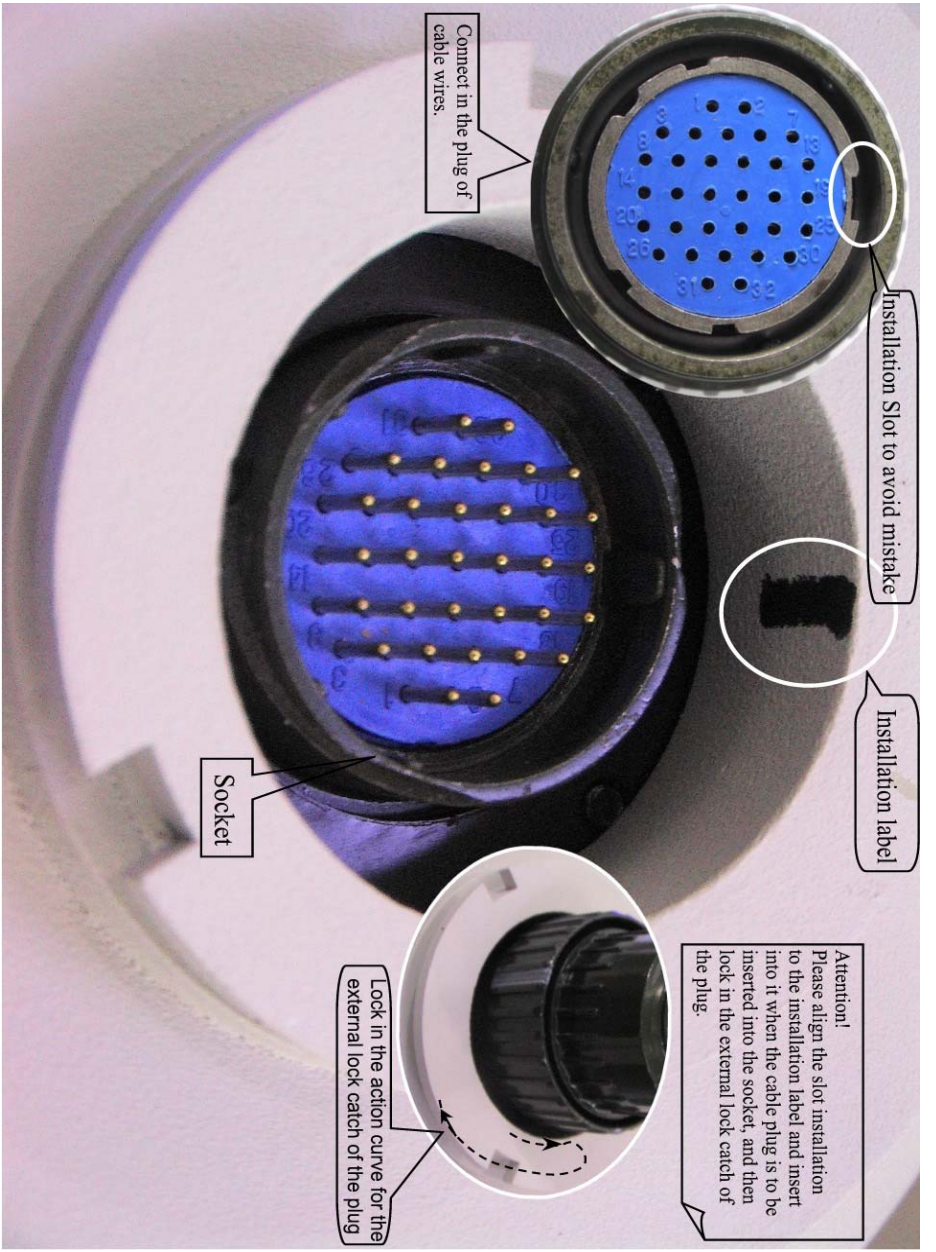
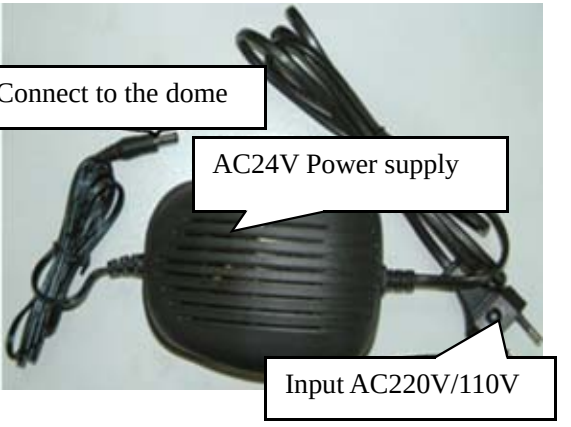

Installation Slot to avoid mistake
Installation label
Connect in the plug of cable wires.
Socket
Attention!
Please align the slot installation to the installation label and insert into it when the cable plug is to be inserted into the socket, and then lock in the external lock catch of the plug.
Lock in the action curve for the external lock catch of the plug

Fig 18

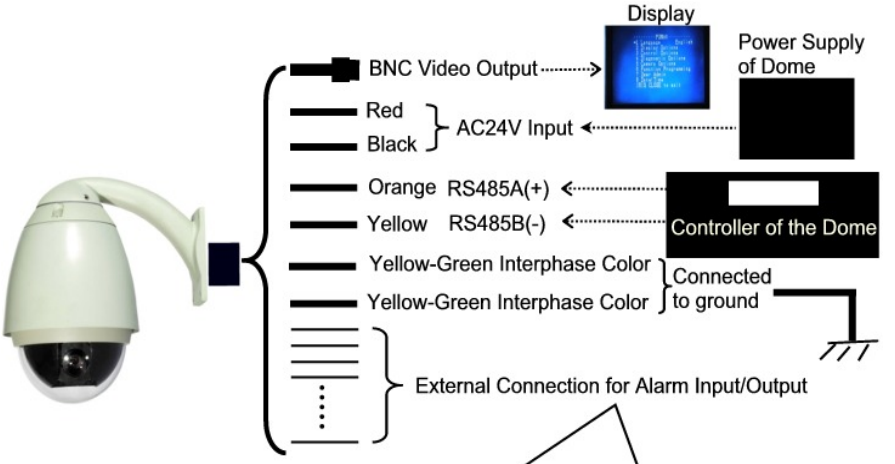
Step 2: Buckle the dome machine into the bracket, and lock it up with 3-M5*14 screw, as indicated in Fig 18.

Attention !

There is a waterproof ring on the M5*14 screw and attention shall be paid to fix it properly. There is a foam blank waterproof ring in the connecting place of the upper part of outdoor dome machine and the bracket, and attention shall be paid that it should be cemented and impacted to prevent rainwater from entering the dome machine. The material for indoor machine is silicon gel mat.



VII. Schematic Drawing of Installation Connections



Description about Connections for Alarming Function:

No. 1 Alarm Input: Red and White
No. 2 Alarm Input: Yellow and White
No. 3 Alarm Input: Blue and White
No. 4 Alarm Input: Black and White
No. 5 Alarm Input: Green and White
No. 6 Alarm Input: Orange and White
No. 7 Alarm Input: Brown and White
No. 8 Alarm Input: Gray and White

The brown line stranded with alarm input line is the alarm system ground

No. 1 Alarm Constant OFF Output (NO1): Blue
No. 1 Alarm Constant ON Output (NC1): Blue and Green
No. 1 Alarm Output Public Terminal (COM1): Brown

No. 2 Alarm Constant OFF Output (NO2): Green
No. 2 Alarm Constant ON Output (NC2): Green and Purple
No. 2 Alarm Output Public Terminal (COM2): Brown.

Intelligent Dome Camera

Operation Manual

（English Version）

Please read this manual carefully before installation and use

(Announcement: This manual will be subject to revision without further notification)

Precautions:

1.Non-techinician is forbidden to operate this dome device before reading this manual carefully.
2.Cut the power supply off before operating the dome device to avoid damage caused by mal-operation.
3.Interior of the Dome device are precision optical and electrical instruments. Heavy pressure, shock and other incorrect operations should be prevented. Otherwise, may cause damage on product.
4.Please do not remove and disassemble any internal parts of Dome video camera by self in order to avoid normal usage being impacted. There is no part inside the device, which can be repaired by users themselves.
5.All the wiring of the dome device should be conducted strictly according to the wiring instruction. When necessary, thunder-proof, surge-proof and other protecting measures should be carried out.
6.Please do not use the product under the situations of exceeding specified temperature, humidity or power supply specifications.

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Chapter One Product Overview

I. Performance instruction:

1. **Address of Dome device is from 0～255.** The number (address) of dome device in the control system is setup by the hardware (8-digit on and off switch) of dome device.
2. **Integrate multi-protocol and auto protocol differentiation. Note: The dome device only auto differentiate controller of the first communication.**
3. **Pan 360 degree continuous rotation.**
4. **Tilt 90 degree action plus 2 degree angle adjustment.**
   Plus the 2 degree adjustment, the view angle can be 90 or 92 degree.
5. **Pan manual operation speed can be 0.1 to 300 degree per second**
6. **Tilt manual operation speed can be 0.1 to 120 degree per second**
7. **128 pershot positions.**（A fixed position that aimed by the dome camera, which can be set and revised by user arbitrarily）
8. **The maximum running speed when preshot is being called can reach 400 degree per second with accuracy of ±0.1 degree.**
9. **Compatible with many kinds of Module Camera.**（Sony, Hitachi, Sanyo, Yoke, CNB, LG, Haitron,Samsung）
10. **Power supply: AC 24V1.5A(indoor type), AC 24V2A(outdoor type)**
11. **Easy installation interface.**
12. **Pass environmental protection grade IP66 (outdoor type)**
13. **Adopts long distance RS-485 transmission mode**
14. **Transmission speed, i.e. Baud rate is selectable.**（Set by the fifth and sixth bit of the on and off switch of the dome device. 2400bps~19200bps）

II. Feature Functions Instruction:

1. **Multi-language operation menu and function display.**
2. **Camera name and operation position and angle display.**（The name of the camera can be edited and the coordinate angle of the dome device can be displayed on the screen.）
3. **Operation crosshair function**（Enable this option, the target can be captured more effectively with crosshair on the screen.）
4. **Three PTZ tours operation with 2 minutes record of each tours.**（Can real-time monitor and record the action of manual operation）

5. Six group of programmable vector scans (including scan speed, dwell time, preshot and interruption between tours)

6. Auto flip function with 10 degree move up

7. Eight sectors of programmable sectional mask. （Can mask part of the sectors of camera, which differs depending on different types of camera）

8. Eight sectors of programmable sectional display. （Can display the name and nature of concrete position shooting by the camera, which differs depending on different types of camera）

9. Auto enter function running after self-test of the dome device and auto enter function running when there is no transmission. (Dwell time can be set from 1 to 999 seconds)

10. Frozen video picture function.（freez picture function）

11. Operation return function.（after executing operation return, the dome device will return to the previous operation）

12. Intelligent manual scan function.（ execute this function in manual pan operation, you can adjust the manual pan operation）

13. Intelligent power off real time memory.（If power was cut off when a certain function is in operation, the dome device can resume working at where the power is cut off.）

14. High efficient 3-dimension scan.

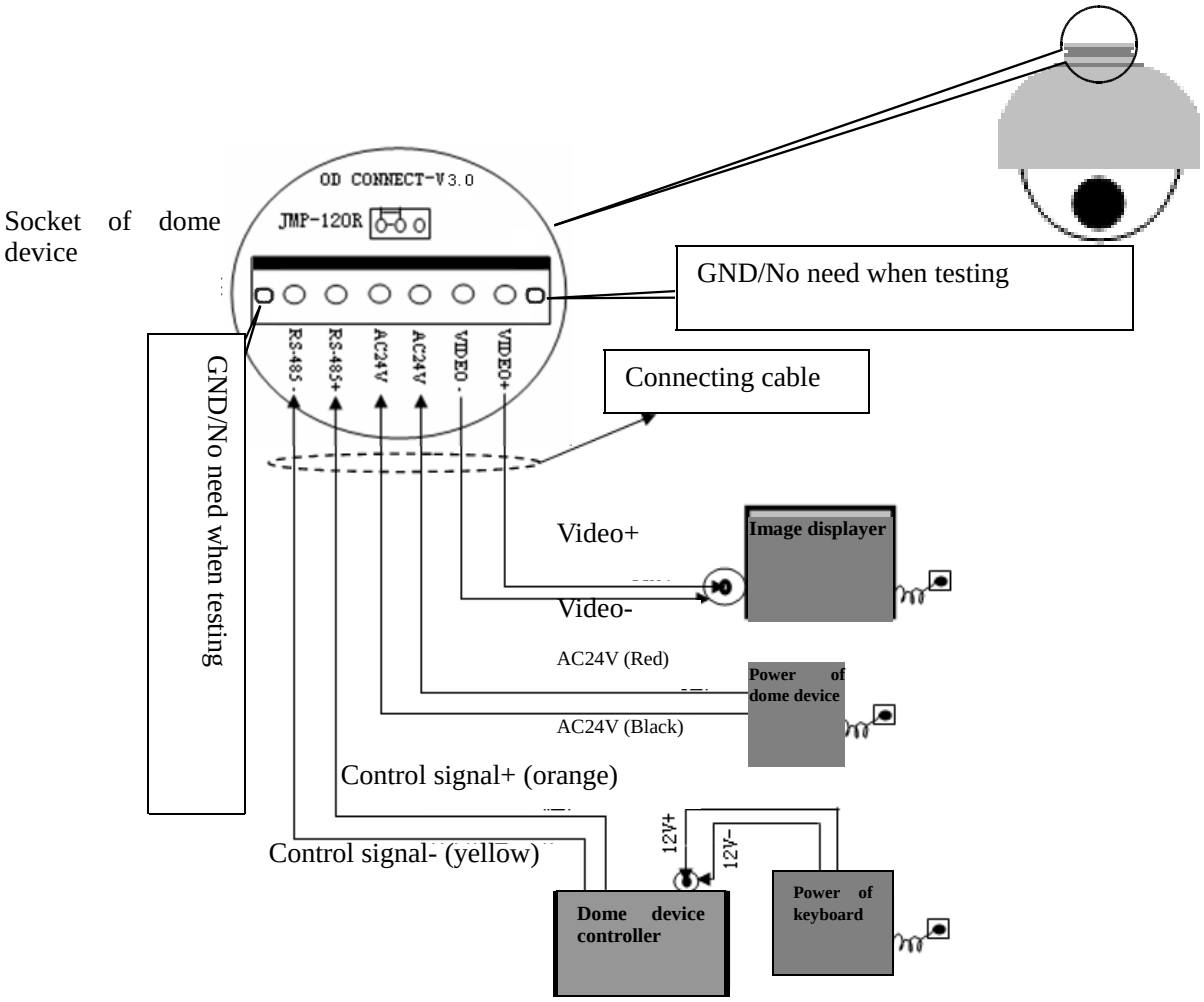
15. Camera zoom in speed limit function.（When it was zooming in, the speed of the dome device will auto slow down.）

Chapter Two Wiring and Setup of Dome System

I. Wiring of Dome System

1.Basic system connection.（One dome device）

From the basic system connection, user can understand the electric wiring attribute of the dome device and bring great operation convenience of installation, testing and demo. When using this product for the first time, please read carefully and follow this electric wiring drawing as any wrong wiring may lead to permanent damage of the dome device or damage of other equipment.



In the drawing, JMP-120R is the impedance matching selection of control signal and noise restrain of RS-485, when there is long distance transmission or noise-control, it can short jumper

!Attention: No operation when the dome device is power on.

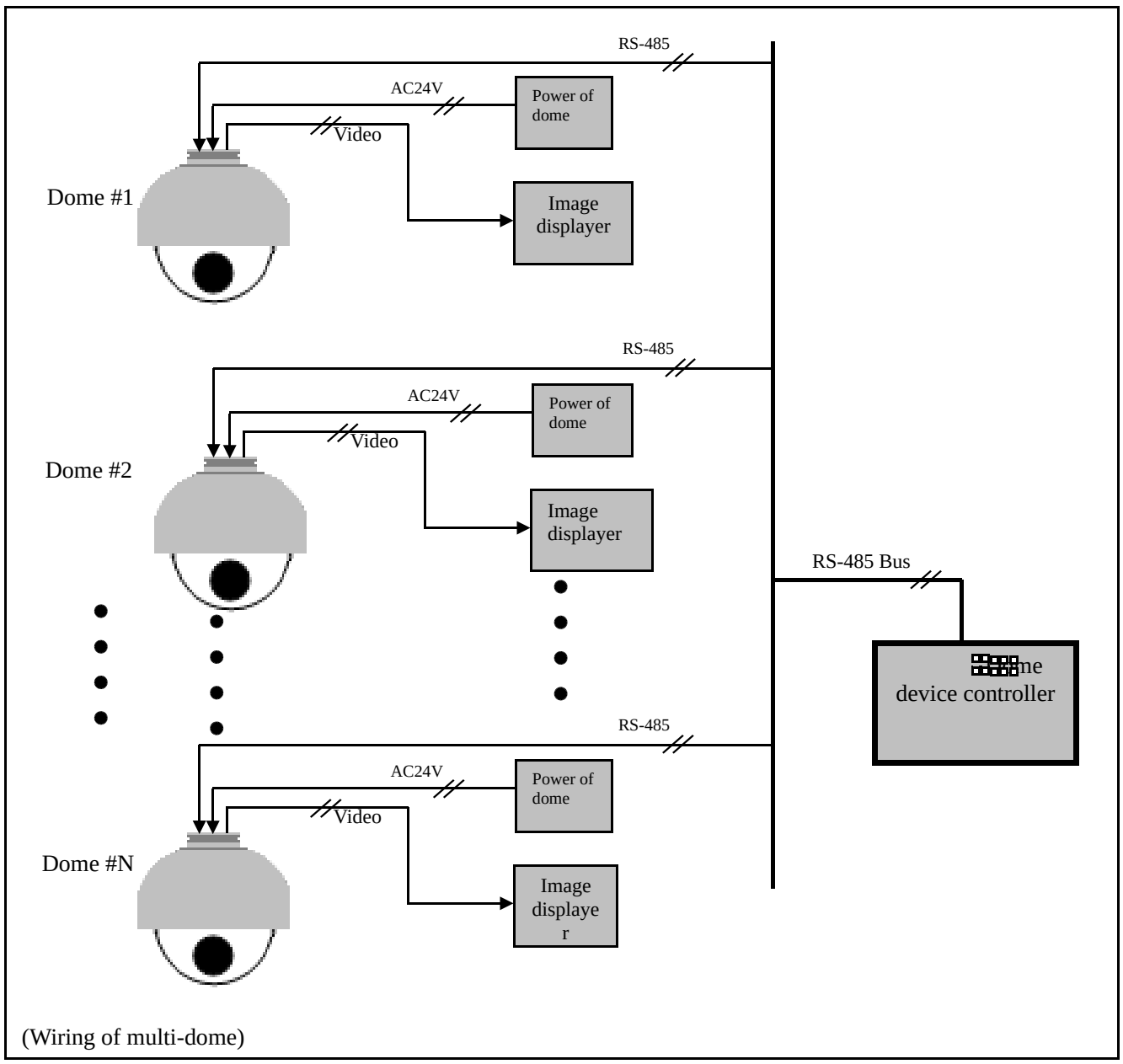
2. Multi-dome device connection.

When connecting many dome devices together, the user can embed multi-device system with auxiliaries such as arrester device, video matrix, DVR and alarm box for system integration.

AC24V: Power supply of dome device, which will convert 110V/60H_Z or 220V/50H_Z input to AC 24V output and supply to the dome device.

RS-485 Bus: It is for the control signal （ RS-485 signal ） output of controller, connecting to the communication input terminals of control cable of each dome device.

Video: It is for image signal output of dome device, (can directly output to video equipment such as monitor or video matrix. Take care of the match up of impedance.）

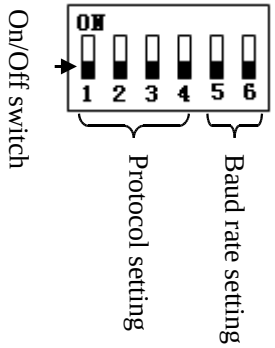


(Wiring of multi-dome)

II. Setting of Dome Device communication

Before installation and use, the setting of communication protocol and transmission speed (baud rate) should comply with the control system.

1. Setting protocol and baud rate of dome device.



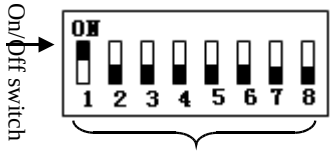
On/Off status / Protocol type	1st digit	2nd digit	3rd digit	4th digit	5th digit	6th digit
PELCO-D	ON	ON	OFF	OFF	**	**
PELCO-P	OFF	OFF	ON	OFF	**	**
Auto Differentiate	OFF	OFF	OFF	OFF	**	**
Actiontop System reserve	ON	ON	ON	ON	**	**

Attention: the protocol and baud rate of dome device should comply with those of controller, which need to be restarted after revision.

This figure shows protocol of PELCO-D, Baud rate of 2400.

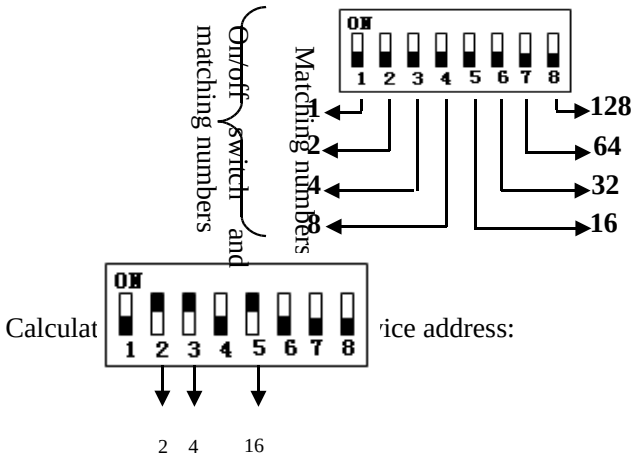
On/Off status Baud rate	5th digit	6th digit
2400	OFF	OFF
4800	OFF	ON
9600	ON	OFF
19200	ON	ON

2. Address setting of dome device.



Setting address for dome device (this figure shows the address of dome device No 1).

Setting method: The sum of switch numbers when it is at ON position is the address of dome device.

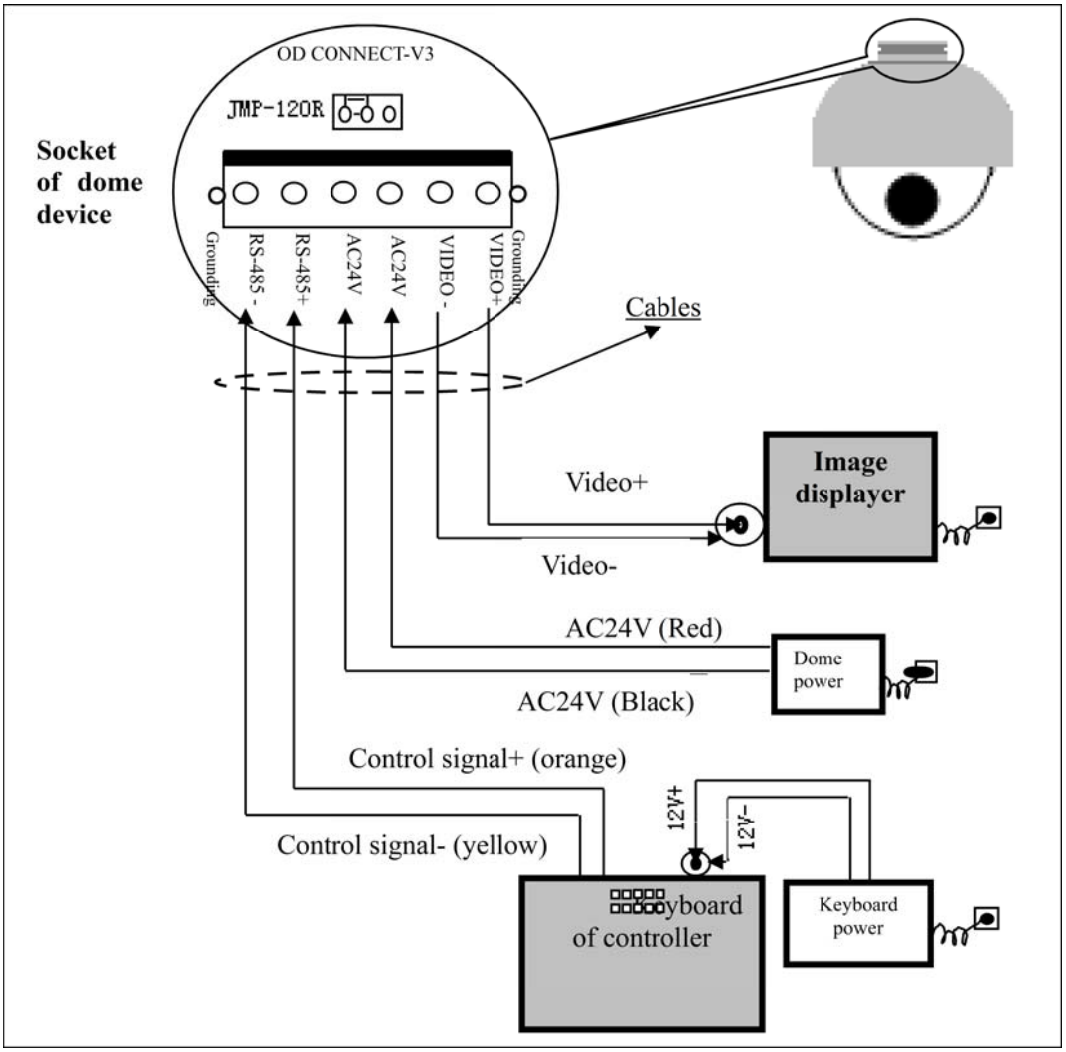


（**2+4+16=22**）the address is **22**.

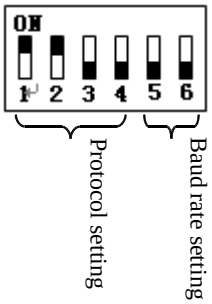
Dome device range: 0~255.

Chapter Three Fast Operation Guide of Dome Device

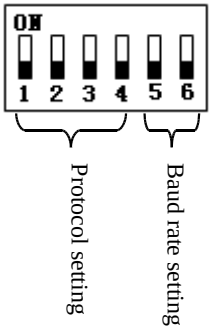
I. Wiring (Please do not turn the power on).



II. Setting protocol and baud rate. (Turn the power off when setting, and restart the device after revision).



The figure shows: Protocol: **PELCO-D**
Baud rate: **2400 bps**
(Please refer to detailed parameter in next chapter)



The figure shows: Auto detection protocol.
Baud rate: **2400bps**
(Please refer to detailed parameter in next chapter)

This dip switch located on PCB in the dome device

III. Setting dome device address. (Turn the power off when setting, and restart the device after revision).

Set address for dome

The figure shows: Address of the dome device: No. 1

(Please refer to detailed parameter in next chapter)

This dip switch located on PCB in the dome device

IV. Install camera. (Please refer to camera installation for details).

Attention: 1**.** Do not connect the camera and dome device with FFC in a wrong way.

2. The installation holes of different camera differ.

V. Connect the power of dome device.

At this moment, the self-test (rotation) of dome device and self-test (there will be image on the monitor) of camera can be seen.

Attention: When the dome device is self-testing, it is normal when sound is issued caused by the block of dome device after 2~5 seconds of vertical movement, which is the tilt orientation of the dome itself.

VI. Controller setting.

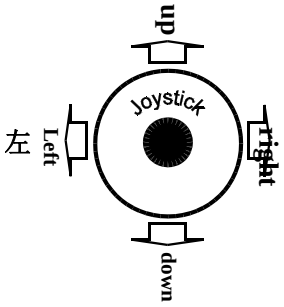
Set the protocol, baud rate and address of the keyboard controller identical with those of dome device. (Please refer to keyboard controller instruction manual).

Attention: If the setting of protocol of dome device is auto detection, the protocol of keyboard controller can be set arbitrarily. But its baud rate should be set identical with that of the dome device.

VII. Start testing.

When all the above are ready, the testing to dome device can be started.

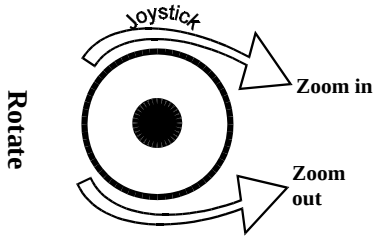
1. Direction control test of dome device



The directions (up, down, left and right) of the dome device can be controlled by using the keyboard controller, as indicated in the figure.

Note: the working of dome device is normal

2. Zooming control test of camera



Zooming of the camera can be controlled by zooming function Joystick or by using TELE (zoom in) and WIDE (zoon out) on the keyboard button.

Note: The camera and dome device are normal

（Please refer to the next section for demonstration of menu operation and control of dome device.）

VIII. Complete the test. (Summary).

1. If the performance of item 7 is normal, it indicates the system is basically normal. Please do not change the wiring and various setting to avoid fault and unnecessary damage and loss.
2. If the performance of item 7 is abnormal, or only one item works normally, please check the wiring (item 1 and 4) and setting (item 2, 3 and 6) carefully.

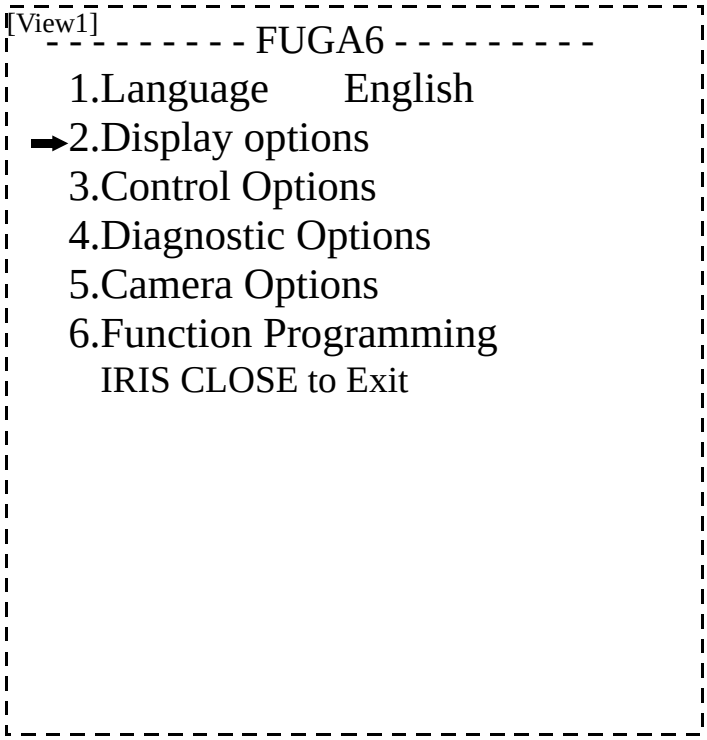
Chapter Four -English Operation Menu of Dome Device

I. Main menu

<1>. Press CALL+90+ENTER on the keyboard to enter the main menu of dome device (fig.1).

<2>. Select options Joy stick only between **up and down**, the arrow points to the current selected option. Press OPEN or **left or right of Joystick** to command entering the submenu of that option or change the value or setting of that option.

<3>. Press **CLOSE** to exit menu or return to upper stage menu.



II. Tree Menu List.

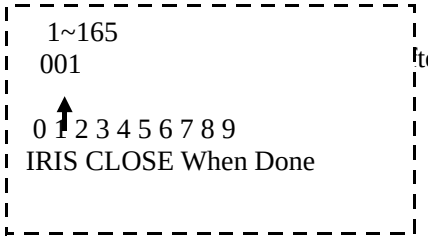
<1>.All sub-menus can be seen clearly in this tree list.

1.Language English << Language options **Joystick left or right to select**

2.Display options << Display options

1.Preshot (Preset position) setup << Preshot setup options

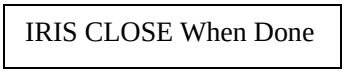
1.Numder 1 << Preshot number selection **Press OPEN or Joy stick left or right to enter**



ter entering is 001. (hundred bit/ten bit/single bit). Joy stick left or right to select preshot position and press **OPEN** to confirm, and Joy stick left or right again to select numbers (0~~9). Press **OPEN** to confirm the selection.

Press **CLOSE** to exit or return to upper stage menu when programming is done. **Press OPEN or Joy stick left or right to enter**

2.Set Preshot << Set preshot



Select preshot and press **CLOSE** to confirm the programming when done and auto exit and return to

the upper stage menu.

3.Call Preshot << Call preshot.

The action of the dome device can be seen and return to corresponding preshot point.

```
Call out
```

4.Delete preshot << Delete preshot.

<<Reminder: Are you sure to delete preshot?

Press OPEN to confirm

Press **CLOSE** to exit and return to upper stage menu.

```
Are you sure to do this?
IRIS OPEN to Confirm
IRIS CLOSE to Cancel
```

5.Name _ _ _ _ _ _ _ _ <<Edit the name of preshot. **Press OPEN or Joy stick left or right to enter**

```
_ _ _ _ _ _ _ _
↑
0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N
O P Q R S T U V W X Y Z _
IRIS CLOSE When Done
```

<<Joystick left or right when programming to select preshot and press **OPEN** to confirm.
Joystick left or right to select (0~~9 or A~~Z).
Press **OPEN** to confirm selection.
Press **CLOSE** to exit or return to upper stage menu when programming is done.

6.Name Display ON/OFF <<Name display On/Off **Joystick left or right to select**

IRIS CLOSE to Exit

2.Sector Setup <<Sector setup **Press OPEN or Joy stick left or right to enter**

1.Number (1 ~ 8) <<Number selection

2.Name _ _ _ _ _ _ _ _ <<Name editing **Press OPEN or Joy stick left or right to enter**

```
_ _ _ _ _ _ _ _
↑
0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N
O P Q R S T U V W X Y Z _
IRIS CLOSE When Done
```

<< Joy stick left or right when programming to select preshot and press **OPEN** to confirm.
Joy stick left or right to select (0~9 or A~Z). Press **OPEN** to confirm selection.
Press **CLOSE** to exit or return to upper stage menu when programming is done.

3.Pan Start pos 0.0 <<Setup pan start point. **Press OPEN or Joy stick left or right to enter**

Capture the start point and press **CLOSE** to exit and return to upper stage menu.

```
IRIS CLOSE When Done
```

4.Pan End pos 0.0 << Setup pan end point. **Press OPEN or Joy stick left or right to enter**

Capture the end point and press **CLOSE** to exit and return to upper stage menu.

```
IRIS CLOSE When Done
```

5.Tilt Start pos 0.0 << Setup tilt start point. **Press OPEN or Joy stick left or right to enter**

Capture the start point and press **CLOSE** to exit and return to upper stage menu.

```
IRIS CLOSE When Done
```

6.Tilt End pos 0.0 << Setup tilt end point. **Press OPEN or Joy stick left or right to enter**

Capture the end point and press **CLOSE** to exit and return to upper stage menu.

```
IRIS CLOSE When Done
```

7.Name display ON/OFF << Sector name display On/Off **Joy stick left or right to select**

IRIS CLOSE to Exit

3.Coordinates ON/OFF << Coordinates display On/Off **Joy stick left or right to select**
4.Crosshairs ON/OFF << Crosshairs On/Off **Joy stick left or right to select**
5.Start-UP Scr Msg ON/OFF << Start-up screen message display On/Off
Joy stick left or right to select

IRIS CLOSE to Exit

3.Control options << Control options **Press OPEN or Joy stick left or right to enter**

1.Set pan and Tilt << Pan/Tilt setup of dome device **Press OPEN or Joy stick left or right to enter**

1.Pan Reverse ON/OFF << Pan Reverse ON/OFF **Joy stick left or right to select**

2.Tilt Reverse ON/OFF << Tilt Reverse ON/OFF **Joy stick left or right to select**

3. +2 Tilt Limit ON/OFF <<+2 Tilt Limit ON/OFF **Joy stick left or right to select**

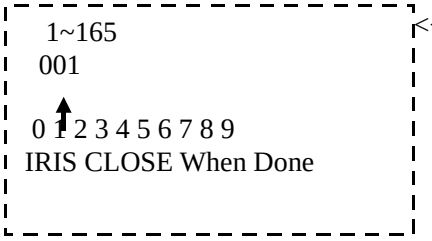
4.Find Home on STA ON/OFF << Find Home on start ON/OFF **Joy stick left or right to select**

IRIS CLOSE to Exit

2.Set Default Function << Set default function **Press OPEN or Joy stick left or right to enter**

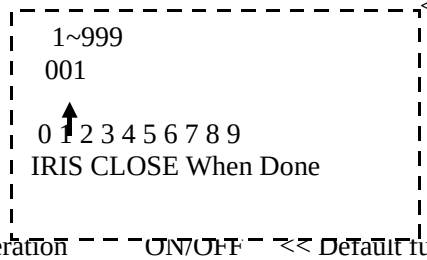
1.Default Function P/V/T<<Select default function (Preshot/Tour/PTZ) **Press OPEN or Joy stick left or right to enter**

2.Number 1 << Function number selection **Press OPEN or Joy stick left or right to enter**



<< Joy stick left or right when programming to select preshot and press **OPEN** to confirm.
Joy stick left or right to select (0~~9). Press **OPEN** to confirm selection.
Press **CLOSE** to exit or return to upper stage menu when programming is done.

3.Delay 001 <<Time delay setting (second) **Press OPEN or Joy stick left or right to enter**



<< Joy stick left or right when programming to select preshot and press **OPEN** to confirm.
Joy stick left or right to select (0~~9). Press **OPEN** to confirm selection.
Press **CLOSE** to exit or return to upper stage menu when programming is done.

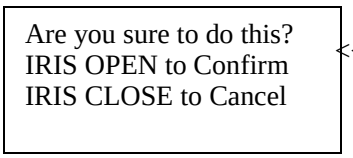
4.Operation ON/OFF << Default function On/Off **Joy stick left or right to select**

IRIS CLOSE Exit

3.Speed Limit ON/OFF << Operation speed limit On/Off **Joy stick left or right to select**
4.Auto Flip ON/OFF << Auto flip On/Off **Joy stick left or right to select**
5.Auto Focus PTZ/OFF/Z << Auto focus options **Joy stick left or right to select**
6.Auto AE PTZ/OFF/Z << Auto AE option **Joy stick left or right to select**
7.Vector scan AF ON/OFF << Vector scan auto focus control **Joy stick left or right to select**
IRIS CLOSE to Exit

4.Diagnostic Options << Diagnostic options **Press OPEN or Joy stick left or right to enter**

1.Clear Memory << Clear data in the memory **Press OPEN or Joy stick left or right to enter**



<< Reminder: are you sure to do this.
Press OPEN to confirm.
Press **CLOSE** to exit and return to upper stage menu.

2.Restore Def Setting << Restore default setting **Press OPEN or Joy stick left or right to enter**

Are you sure to do this?
IRIS OPEN to Confirm
IRIS CLOSE to Cancel

<< Reminder: are you sure to do this.
Press OPEN to confirm.
Press **CLOSE** to exit and return to upper stage menu.

3.Co SC << PAL/NTSC switch **Joy stick left or right to select**

4.S Null) << Restart dome camera. **Press OPEN or Joy stick left or right to enter**

5.Dome Information << Dome information. **Press OPEN or Joy stick left or right to enter**

----------FUGA6---------- << Name of dome
Camera:x x x x x x x x << Type of camera
Protocol:x x x x x x x x << Control protocol
Baud rate: x x x x << Baud rate
Dome No.:x x x << Dome number
Version:x x x x << Press **CLOSE** to exit and return to upper stage menu.
IRIS CLOSE to Exit

5. Cam mera as example) << **Press OPEN or joystick left/right to enter**

1.Zoom and Focus << **Press OPEN or joystick left/right to enter**

1. .Zoom Speed 7 << Joystick left/right to select
2. .Digital Zoom ON/OFF << **Joystick left/right to select**
3. .AF Sensitivity High/Low << **Joystick left/right to select**

IRIS CLOSE to Exit

2.Camera Exposure << **Press OPEN or joystick left/right to enter**

1. AE Mode Auto/Manual/shutter/Iris/Bright << **Joystick left/right to select**
2. .Slow Shutter OFF/ON << **Joystick left/right to select**
3. .shutter Speed Auto/Manual << **Joystick left/right to select**

（Note: It is adjustable only when the AE is under manual operation or shutter mode）

4. .Iris level Auto/Manual << **Joystick left/right to select**

（Note: It is adjustable only when the AE is under manual operation or IRIS mode）

5. .AGC Level Auto/Gain << **Joystick left/right to select**

(Note: AGC Level is adjustable only when AE is under manual operation)

6. .Bright Level Auto/Manual << **Joystick left/right to select**

（Note: It is adjustable only when the AE is under Bright Level）

7. .Spot AE OFF/ON << **Joystick left/right to select**
8. .WDR OFF/ON (Need camera support) << **Joystick left/right to select**

IRIS CLOSE to Exit

3.Mask Zone << **Press OPEN or joystick left/right to enter**

1. .Numder (1～24) << No. 1～24 **Joystick left/right to enter**
2. .Mask Edit << **Press OPEN or joystick left/right to enter**

IRIS OPEN to Begin
IRIS CLOSE When Done

<< Select the mask zoon to be masked, press OPEN and press NEAR (Tilt zoom out) FAR (Tilt zoom in), WIDE (Pan zoom out), TELE (Pan zoom in).Press CLOSE and return to upper menu.

3. .Mask Display OFF/ON << **Joystick left/right to select**

IRIS CLOSE to Exit

4.Mask Color << **Press OPEN or joystick left/right to enter**

1. .Mask Color Gray5 << Masking color option（gray1\gray2\gray3\gray4\gray5\gray6\white\ red\green\blue\ blueness\yellow\magenta\black）**Joystick left\right to select**

2. .Semi-transparency OFF\ON << **Joystick left\right to select**

IRIS CLOSE to Exit

5.Others << **Joystick left\right to enter**

1. .Sharpness 5 << 0～15 **Joystick left\right to enter**
2. .Black Light OFF\ON << **Joystick left\right to enter**
3. .WB Mode Auto\Manual\Indoor\Outdoor\Onepush\ATW << **Joystick left\right to enter**
4. .R Gain Auto << **Joystick left\right to enter**

（Note: R Gain is effective when White Balance is under manual operation）

5. .B Gain Auto\manual << **Joystick left\right to enter**

（Note: B Gain is effective when White Balance is under manual operation）

6. .Vertical Mirror OFF\ON <<**Joystick left\right to enter**
7. .Horizontal Mirror OFF\ON << **Joystick left\right to enter**
8. .IR SW Mode Auto\Color\ B\W << **Joystick left\right to enter**
9. .Stabilization OFF\ON (Need camera support) << **Joystick left\right to enter**
10. .Function OSD ON\OFF << **Joystick left\right to enter**

IRIS CLOSE to Exit

11. Line Sync OFF\ON << **Joystick left\right to enter**

IRIS CLOSE to Exit

6.Function Programming << Special function programming **Press OPEN or Joystick left or right to enter**

1. PTZ Tour(Pattern) << Pan/Tilt/Zoom tour programming **Press OPEN or Joystick left or right to enter**

1.Number (1 ~3) <<PTZ tour number **Joystick left or right to select**

2.Name _ _ _ _ _ _ _ _ <<Edit PTZ name **Press OPEN or Joy stick left or right to enter**

```
_ _ _ _ _ _ _ _
↑
0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N
O P Q R S T U V W X Y Z _
IRIS CLOSE When Done
```

<< Joystick left or right when programming to select preshot and press **OPEN** to confirm.
Joystick left or right to select (0~~9 or A~~Z).
Press **OPEN** to confirm selection.
Press **CLOSE** to exit or return to upper stage menu when programming is done.

3.Program a Tour <<Enter PTZ tour programming **Press OPEN or Joy stick left or right to enter**

```
IRIS OPEN to Begin
IRIS CLOSE to Exit
```

<<Press OPEN to confirm and start programming.
<<Press CLOSE to exit the programming and return to upper stage menu.

4.Run a Tour <<Run Pan/Tilt/Zoom tour (pattern) **Press OPEN or Joy stick left or right to enter**

```
Call out
```

5.Delete a Tour <<Delete PTZ tour. **Press OPEN or Joy stick left or right to enter**

```
Are you sure to do this?
IRIS OPEN to Confirm
IRIS CLOSE to Cancel
```

<< Reminder: are you sure to do this.Press OPEN to confirm.
Press **CLOSE** to exit and return to upper stage menu.

6. Name Display ON/OFF <<PTZ tour name display On/Off **Joy stick left or right to select**

IRIS CLOSE to Exit

2.Program Vector Scan

<< Program vector scan. **Press OPEN or Joy stick left or right to enter**

1.Number (1 ~~ 6) <<Vector scan number **Joy stick left or right to select**

2.Program a Vector scan <<Vector scan programming **Press OPEN or Joy stick left or right to enter**

```
   Name   Num   V   Dwell
1   _      _    _    _
2   _      _    _    _
3   _      _    _    _

16
 IRIS CLOSE When Done
```

<<Joystick arbitrarily to move the cursor, and stop the cursor at place of programming. Press **OPEN** to enter the selection.

Function name

Name → P/T/V

<< Press OPEN continuously to select P: Preshot, T: self-study (pattern or PTZ tour), V: vector scan

Function number

Num →

```
 1~293
 001

0 1 2 3 4 5 6 7 8 9
   IRIS CLOSE When Done
```

<< Joy stick left or right when programming to select preshot and press **OPEN** to confirm.
Joy stick left or right to select (0~9). Press **OPEN** to confirm selection.
Press **CLOSE** to exit or return to upper stage menu when programming is done. stage menu when programming is done.

Velocity selection

V → 1~9

<< Press OPEN continuously to select

Dwell time

Dwell →

```
 1~99
 001

0 1 2 3 4 5 6 7 8 9
   IRIS CLOSE When Done
```

<< Joy stick left or right when programming to select preshot and press **OPEN** to confirm.
Joy stick left or right to select (0~9). Press **OPEN** to confirm selection.
Press **CLOSE** to exit or return to upper stage menu when programming is done.

3.Run a Vector Scan << Run vector scan. **Press OPEN or Joy stick left or right to enter**

Call out

4.Delete a Vector Scan << Delete vector scan **Press OPEN or Joy stick left or right to enter**

```
Are you sure to do this?
IRIS OPEN to Confirm
IRIS CLOSE to Cancel
```

<< Reminder: are you sure to do this.
Press OPEN to confirm.
Press **CLOSE** to exit and return to upper stage menu.

IRIS CLOSE to Exit

3.Program Alarms

<< Program alarms. **Press OPEN**

```
   Name   Num   E/N
1   _      _     _
2   _      _     _
3   _      _     _
4   _      _     _
   IRIS CLOSE to Exit
```

not available at th

Name → P/V/T

Num →

```
 1~128
 0

0 1 2 3 4 5 6 7 8 9
   IRIS CLOSE When Done
```

E/N → N/Y

IRIS CLOSE to Exit

Chapter Five Short-cut Operations and Specification of Dome Device

1. Short-cut operation table

System Preset Short-cut Operation Table	
PreShot 80 (Call 80)	Run PTZ Tour 1
PreShot 81 (Call 81)	Run PTZ Tour 2
PreShot 82 (Call 82)	Run PTZ Tour 3
PreShot 83 (Call 83)	Start VectorScan 1
PreShot 84 (Call 84)	Start VectorScan 2
PreShot 85 (Call 85)	Start VectorScan 3
PreShot 86 (Call 86)	Start VectorScan 4
PreShot 87 (Call 87)	Start VectorScan 5
PreShot 88 (Call 88)	Start VectorScan 6
PreShot 89 (Call 89)	Joy sticks between freeze and unfreeze video
PreShot 90 (Call 90)	Setup the Menus and Camera
PreShot 91 (Call 91)	Invokes the Flashback Function
PreShot 92 93 94	Reserve

Description of the preset point:

Preset point of the position: 1-50, 64-77,102-165 (totally 128)

Function short-cut preset point: 51-63, 78-101

Note: Dome operation will be different due to controller's different specs.

Preset point setting:

Method 1: Press "PRESET" + "No." + "ENTER" by using AT525 Controller.

Method 2: Press "No." + "Shot." + "ON" by using AT505 Controller.

Call Preset point:

Method 1: Press "Call" + "No." + "ENTER" by using AT525 Controller.

Method 2: Press "No." + "Shot." + "ACK" by using AT505 Controller.

Clear Preset point:

Method 1: Press "PRESET " + "No." + "OFF" by using AT525 Controller.

Method 2: Press "No." + "Shot." + "OFF" by using AT505 Controller.

2. Description of "cruise track" function:

a） When enter "**PRESET+51+Enter**", the device is enabled system default cruise track. The device will auto scan point by point from No.1 preset position to No.16 preset position. If certain position has not been preset or been cleared after preset, "**cruise track**" will not scan them.

b） Dwell time of the preset position is 2 seconds.

c） About other 6 cruise tracks operation, please refer operation manual of the keyboard controller. Different controller is with different operation.

3. Description of "Line-Scanning" function:

a) Dome device will auto line-scan between two specified points.
b) User can set the start point by "PRESET+52+Enter" and end point by "PRESET+53+Enter".
c) Line scanning speed set: user keep a manual line scan speed three seconds above, then through"CALL+51+Enter" to save the speed as line scan speed, use"CALL+52+Enter" to enable the line scan.
d) Dwell time of line-scanning between "starting point" and "ending point" is 2 seconds.

4. Intelligent manually pan continuous scan:

When user use joystick for pan scan monitoring, keep manually 3 seconds, then press "CALL+101+Enter", the dome can go on with the scan speed and monitor position automatically .

5．Main Technical Indexes

Specification	Power	AC24V 2.0A
	Power Consumption	18VA (without camera)
	Weight	3Kg (without camera)
	Installation Method	Hanging-type ceiling-style, bend-tube type, etc (optional)
	Relative Humidity	10-75%（under the condition of without condensation）
	Operating Temperature	-20℃～50℃（normal range）

Chapter Six Trouble Shooting of Dome Device

S.N.	Problem Description	Possible Reason	Troubleshooting	Remarks
1	After power on, no motion and no image.	Power cable is connected improperly.	Check if the power cable is connected to power of AC24V	Please follow the above basic system wiring strictly
		Fault of power PCB of dome device	Change the power PCB	
		slip ring power wires disconnected	Change slip ring	
		Fault of main control board	Change main control board	
2	After power on, the dome device rotate normally, but no character nor image display	Character monitor switch is off	Switch on the character monitor according to the menu instruction	About 45 second after the dome device is power on.
		Improper connection between camera and dome device	Replace a FFC cable or a camera	
3	After self-test of the dome device, menu cannot be displayed	wrong operation	CALL+90+ENTER open	After self-test, the menu can only be displayed when there is image display of the dome device
		Fault of OSD control board	Change OSD board	
4	Distorted character or image	Interfered by exterior electronic signal (noise) or the camera is directed to the monitor screen	Grounding the dome device or shut off the surrounding big electronic devices(electric, HF, signal generating) equipment, or rotate the camera	Shielded cable should be adopted for video cable
		System wrong function	Restart the dome device	
5	After power on, no self-test and motor is locked	The system setting is start self-test after receiving command and you can see the video on the screen	Connect the controller and set correct transmission protocol and baud rate as well as dome device address	There is character display in normal circumstance
6	Cannot stop pan rotation (rotate and stop alternatively)	OSD board is not properly connected with main control board or the photoelectric switch is broken	fix OSD board again, if the problem still exits, then replace the OSD board	Pan interupter should be at 2/3 of the central slot within photoelectric switch
		Pan interupter is not in due position	Adjust the pan interupter	
7	After normal working, it will rotate one circle when being controlled	The system is checking the data again	It is normal event	If this happens frequently, please adjust the pan interupter or check if the connection is too tight.
8	Vertical range is not within 90±2 degree with large deviation	Fault occurs when the dome device is in tilt movement. It may be caused by obstacle of camera of other object, which lead to early tilt movement	Check and adjust the mechanical installation	
9	Self-test is normal, but cannot control	Wrong setting	Set the protocol, baud rate and address of dome device	
		Improper connection of control cable	Check the circuit	
10	Insensitive control of dome device	Overload or too long distance transmission	Add driver	Mostly happen in the connection
		Improper contact of control cable	Check the circuit	
		slip ring is demage	Replace slip ring	
		RS-485 protective discharge arresters broken	Change 485 protective discharge arresters	
11	Call out function fails	System failure caused by noise interference	Restart the dome device	
12	Auto action of dome device periodically	No transmission auto “call back” function is set to the dome device	Called this setting	
13	One dome working well while the other does not under identical operaion	Something wrong with the setting or wiring	check the setting and wiring again	